WATER CHEMISTRY
AND STREAM DYNAMICS STUDY

Purpose:
- To measure the physical and chemical attributes of the water in three small tributaries that run through our property into the Patuxent
- To sample physical and chemical attributes of each of the streams
- To observe changes over time and seasons
- To accumulate and interpret data on nutrient cycling
- To establish long-term baseline data for future comparison

Background:
   The Chesapeake Bay is the largest estuary in the United States. The ecological health of this estuary is greatly affected by the quality of the water that enters from its tributaries. The Jug Bay Wetlands Sanctuary is on the Patuxent River, a mid-sized tributary of the Chesapeake. Through our property flows three streams that contribute to the health of the Patuxent, and ultimately the Bay. Stormwater runoff is now one of the top sources of pollution entering our waterways. In 2009, The Sanctuary began an investigation of the health of these streams and their watersheds.

Duties:
- Go to two sites to make measurements and take samples
- Collect water samples for field and laboratory analysis
- Determine oxygen content, acidity, clarity, and temperature
- Operate a Dissolved Oxygen meter

Skills and Interest required:
- Attention to detail and accuracy
- Willingness to work outdoors in various weather conditions
- Regular availability
- Basic lab skills are helpful but not required

Schedule:
- Year-round
- Each stream is visited once per month
- Sampling is conducted on three consecutive days, usually around the weekend mid-month

Training:
   New volunteers undergo a training period during which they assist staff naturalists and trained volunteers; as well as attend training workshops. Volunteers also receive a copy of the Water Quality Procedure Manual as a study aid for use while being trained and as a reference for use during sampling.

Call the Volunteer Coordinator or e-mail volunteers@jugbay.org to find out how you can get involved!